

ABSTRACT OF THE DISCLOSURE

A control method for operating internal combustion engine electric hybrid vehicles with smaller battery packs, particularly in configurations where an electric motor (E/M) or electric motor/generator (E/MG), a battery, and associated controls are inserted between the engine and a continuously variable or automatic transmission. The interaction between the combustion engine and battery operated electric motor is controlled by taking energy into the batteries only if it is more efficient than throttling the engine and operating the engine at a lower efficiency. Additionally, the batteries are charged to a certain state or the batteries are maintained at a particular state of charge. A goal of the invention is to obtain the best possible fuel economy while maintaining good driveability.